

N^o 23,729



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COMPLETE SPECIFICATION.

(A communication for abroad by RICHARD MOHR, of Mügeln near Dresden, Germany, Doctor of Medicine.)

Improvements in Respirators or Air Filters for the Nose.

I, FRANKLIN WISE HOWORTH, of 46 Lincoln's Inn Fields, in the County of London, Technical Chemist and Chartered Patent Agent, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

5 This invention relates to a respirator or air filter which is intended to prevent the entrance into the nose of dust and consequently also of disease-producing germs or bacteria, and especially of germs which irritate the mucous membranes of the nose and give rise to hay fever for instance.

10 A respirator or air-filter according to this invention is designed to be worn inside the nose and to fit as closely as possible to the inner surface of the nostrils; it contains a filter composed of a thin flat layer of wadding or cotton wool or the like.

In the accompanying drawings,

15 Fig. 1 is a longitudinal section of one form of respirator or air filter constructed according to this invention.

Fig. 2 is a cross section,

Fig. 3 is a plan of Fig. 1.

20 Figs. 4 and 5 are respectively a longitudinal section and a cross section of a nose filter divided in the middle. Figs. 6 and 7 are respectively a longitudinal section and a cross section of a device having two filtering layers and two covers.

In Figs. 1, 3, 4 and 6, the covers are shown closed, and in Figs. 2, 5 and 7, the covers are shown opened.

25 The frame *a* which is made to conform exactly to the internal shape of each nostril, preferably by taking a mould or impression of the interior of the nose in soft wax, is coloured to correspond with the colour of the mucous membranes of the nose with the object of rendering it invisible, and it is provided with an annular or open-topped cover *b* that is adapted to open and shut on a hinge *c*.

30 The frame may also be divided longitudinally into two portions also hinged together the annular cover and also the frame being formed with cross pieces *d* between which the filtering material in the form of a thin layer *f* of wadding or cotton wool is inserted. By this means the latter remains spread out horizontally inside the frame so that it will no where come in contact with the mucous membranes, and will remain invisible and cannot become moist.

35 Breathing through the nose can take place through the thin layer of filtering material without difficulty, and the long continued wearing of the improved device in the nose does not produce any discomfort in any way. The filtering material can be renewed at frequent intervals and in a few seconds whilst the breath is being held in, and such renewal can take place in any place, because
40 by reason of the hinging of the annular cover on the frame the used filtering

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Howorth's Improvements in Respirators or Air Filters for the Nose.

material can be readily taken out and a fresh pad of filtering material which is kept in reserve can be inserted in its place.

The improved device is also extremely suitable for use by workmen as a protection from dust and the like and in such cases double filtering layers may be employed by means of a double arrangement of hinged covers on the upper 5 and undersides of a central frame.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed I declare that what I claim is:—

1. A respirator or air filter to be worn inside the nose consisting of a frame 10 having an annular or open-topped cover and cross pieces between which a layer of filtering material such as wadding is enclosed, substantially as set forth.
2. In a respirator or air filter to be worn inside the nose of the kind specified in Claim 1, the arrangement of an annular or open-topped cover on the upper 15 side and on the underside of the frame, and of cross pieces for holding several layers of filtering material in one device, substantially as set forth.
3. A respirator or air filter to be worn inside the nose, constructed as shown in the accompanying drawing.

Dated this 2nd day of November 1903.

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Fig.1.

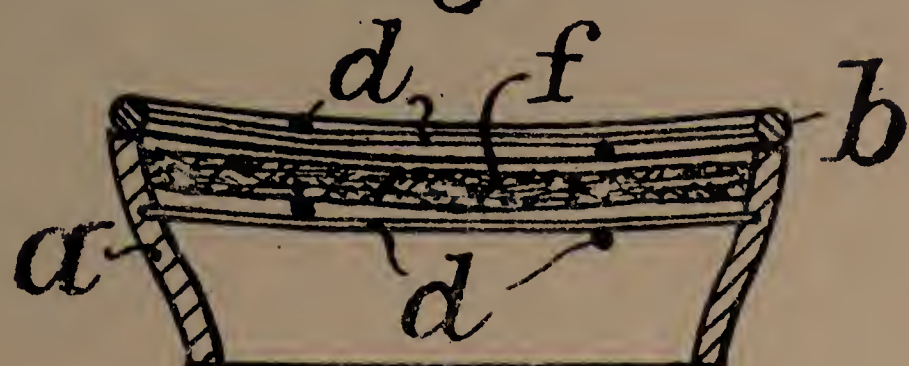


Fig.2.

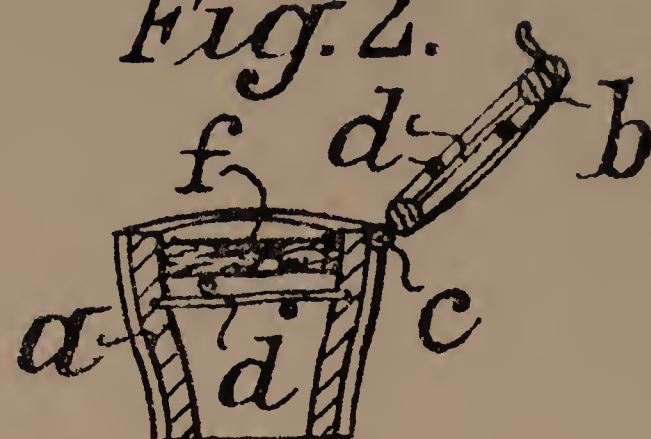


Fig.3.

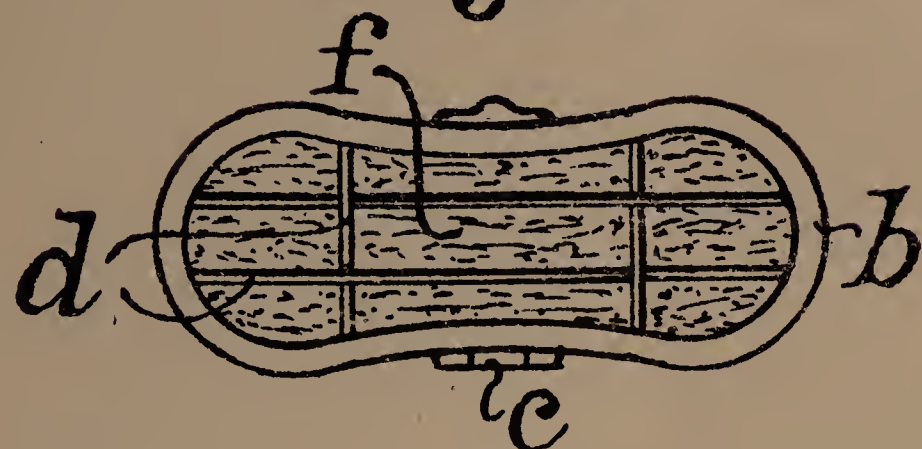


Fig.4.

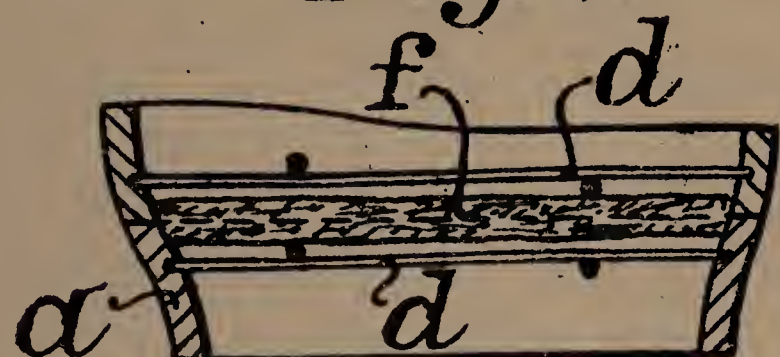


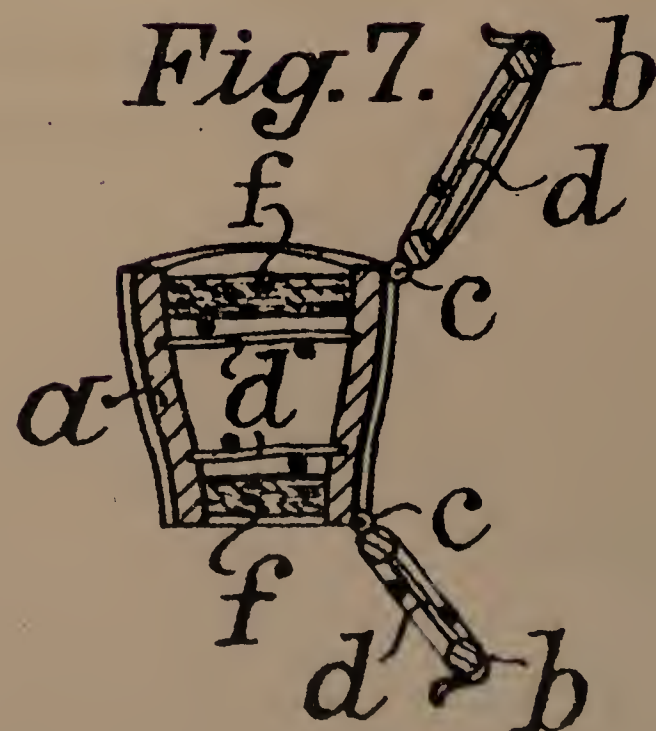
Fig.5.



Fig.6.



Fig.7.



[This Drawing is a full-size reproduction of the Original.]

